



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,442	02/26/2004	Arthur Ashman	01527/100L635-US1	5006
7278	7590	05/16/2006	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			BERMAN, SUSAN W	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,442

Applicant(s)

ASHMAN ET AL.

Examiner

Susan W. Berman

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-90 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-23, 91, 94 and 95, drawn to a composition comprising a bone substitute, a crosslinkable prepolymer and a (photo)initiator, classified in class 522, subclass 087.
- II. Claims 24-28, drawn to a cured composition, classified in class 527, subclass 201.
- III. Claim 29, drawn to a method of promoting bone generation comprising applying and curing the Group I composition, classified in class 522, subclass 087.
- IV. Claims 30-32, drawn to a method of stabilizing a dental implant comprising embedding the implant into a cured composition of Group II, classified in class 433, subclass 201.1.
- V. Claim 33, drawn to a method for preparing objects comprising curing the composition of Group I in a mold, classified in class 264, subclass 496.
- VI. Claim 34, drawn to a method of drug delivery comprising applying and curing the composition of Group I including a therapeutic agent, classified in class 424, subclass 484.
- VII. Claims 35-48, 92, 96 and 97, drawn to a composition comprising a polymeric bone substitute, a linear polymer, a free radically polymerizable monomer and a (photo)initiator, classified in class 522, subclass 087.
- VIII. Claims 49-54, drawn to a cured composition obtained by curing the Group VII composition, classified in class 527, subclass 200.
- IX. Claim 55, drawn to a method of promoting bone generation comprising applying and curing the Group VII composition, classified in class 522, subclass 087.

Art Unit: 1711

- X. Claims 56-58, drawn to a method of stabilizing a dental implant comprising embedding the implant into a cured composition of Group VIII, classified in class 433, subclass 201.1.
- XI. Claim 59, drawn to a method for preparing objects comprising curing the composition of Group VII in a mold, classified in class 264, subclass 496.
- XII. Claim 60, drawn to a method of drug delivery comprising applying and curing the composition of Group VII including a therapeutic agent, classified in class 424, subclass 484.
- XIII. Claims 61-78, 93, 98 and 99, drawn to a composition comprising a polymeric bone substitute, a deformable crosslinkable polymer and a (photo)initiator, classified in class 522, subclass 087.
- XIV. Claims 79-84, drawn to a cured composition obtained by curing the Group XII composition, classified in class 527, subclass 200.
- XV. Claim 85, drawn to a method of promoting bone generation comprising applying and curing the Group XII composition, classified in class 522, subclass 087.
- XVI. Claims 86-88, drawn to a method of stabilizing a dental implant comprising embedding the implant into a cured composition of Group XIII, classified in class 433, subclass 201.1.
- XVII. Claim 89, drawn to a method for preparing objects comprising curing the composition of Group XII in a mold, classified in class 264, subclass 496.
- XVIII. Claim 90, drawn to a method of drug delivery comprising applying and curing the composition of Group XII including a therapeutic agent, classified in class 424, subclass 484.

The Inventions are distinct, each from the other because of the following reasons:

Art Unit: 1711

Inventions I and II or VII and VIII or XIII and XIV are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product, and the species are patentably distinct (MPEP § 806.05(j)). In the instant case, the intermediate product is deemed to be useful as a coating composition for a substrate and the inventions are deemed patentably distinct because there is nothing on this record to show them to be obvious variants.

Inventions I and VII and XIII are directed to related compositions because each contains a bone substitute. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the kind of crosslinkable material added to the bone substitute provides a different function and/or effect.

Inventions II and VIII and XIV are directed to related products obtained by curing a composition comprising a bone substitute. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the kind of crosslinkable material added to the bone substitute provides a product having a different function and/or effect.

Inventions II and VIII and XIV are related as products which share an alleged common utility of embedding a dental implant but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the

Art Unit: 1711

products as claimed can be used to perform another utility. In this case, the products as claimed can be used to perform another utility, such as drug delivery or promoting bone generation or as molded objects.

Inventions I and III or V or VI; Inventions VII and IX or XI or XII; or Inventions XIII and XV or XVII or XVIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case each product can be used in a materially different process such as promoting bone generation, preparing objects or delivery of drugs.

Inventions II and IV; Inventions VII and X or Inventions XIII and XVI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the process of embedding an implant can be practiced with different products such as the cured compositions of claim 24 or claim 49 or claim 79.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Art Unit: 1711

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
5/11/06


Susan W Berman
Primary Examiner
Art Unit 1711